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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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08/973,535

02/05/1998

ROBERT MCNAUGHT GAILEY

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09/23/2004

ALSTON & BIRD LLP
BANK OF AMERICA PLAZA
101 SOUTH TRYON STREET, SUITE 4000
CHARLOTTE, NC 28280-4000

EXAMINER

HURLEY, SHAUN R

ART UNIT

PAPER NUMBER

3765

DATE MAILED: 09/23/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

08/973,535

Applicant(s)

GAILEY ET AL.

Examiner

Shaun R Hurley

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 November 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-45 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-45 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 February 1998 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Drawings

1. Page 12, lines 15-17 of the specification seem to state that figures 1-8 are prior art. If this is correct, then each of figures 1-8 must be designated by a prior art label. If not, then the specification must be corrected to clearly state what figures 1-8 are considered.

2. Figure 7 is objected to because details 12 and 13 do not specifically point to any specific drawing area. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

3. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: 45b, 48c, 101, A, B, 110, 111, 112, 113, 114, 115, 116, and 61. Corrected drawing sheets in compliance with 37 CFR

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1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

4. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: 46b, 101A, 101B, 120, 126, 223, 224, and 225. Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

5. This application does not contain an abstract of the disclosure as required by 37 CFR 1.72(b). An abstract on a separate sheet is required.
6. The disclosure is objected to because of the following informalities:

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The disclosure lacks proper sectional headings.

Page 8, line 4: "it" should read --is--

Page 9, line 12: "material.." should read --material.--

Page 14, line 4: After "up," applicant should insert --to--

Page 14, line 10: "input roller arrangement 108" is incorrect

What is detail 12? Page 7 states "drawn tape"

Page 8 states "undrawn tape"

Page 8 states "tape substrate"

Page 12 states "substrate of a drawn film-forming synthetic polymer material"

Page 12: Lines 10-11 are incorrect. Figure 8 contains "31", which is not present in Figure 6 as stated.

Appropriate correction is required.

Claim Objections

7. Claims 6 and 13 are objected to because of the following informalities:

Claim 6 gives the impression that only the coating is formed into a spiral, when actually the entire tape is formed into a spiral.

Claim 13 is objected to because there is no coating in claim 4 from which it depends.

8. Claim 9 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the

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claim(s) in independent form. Claim 9 does not teach anything above and beyond that of claim 8.

Both claim material that is not elastically extensible.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

9. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

10. Claims 25 and 31 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In regards to claim 25, it is impossible for the roller to be driven if claim 24 requires it be freely rotatable.

In regards to claim 31, what is meant by "higher than normal"? What is considered normal? What is this amount claimed? One of ordinary skill in the art would not be capable of understanding the invention without undue experimentation.

Claim Rejections - 35 USC § 102

11. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

12. Claims 1-4, 16-22, 27-29, 31, and 39 are rejected under 35 U.S.C. 102(b) as being anticipated by Strohmaier (3646747).

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Strohmaier teaches a method of making a strand material (Abstract) comprising drawing and simultaneously false twisting (Column 1, lines 56-58) a homogeneous tape of drawable material having a width of less than 5 mm (Column 1, lines 15-16), wherein a tape supply/support (2 shown on support), drawing arrangement comprising heated (Column 2, line 60) input rollers (5,6) and output rollers (10,11; also winding roll and winding cone, but satisfy the requirement as claimed), and friction false twisting arrangement (8; Figure 2) between the input and output rollers, are used to perform the method. Strohmaier also teaches the resultant false twisted strand material (Figures 4 and 5). The strand would inherently be adapted to be used as a weaving, knitting, or sewing thread, as well as a bag tying means, a package wrapping thread, and a substitute shoe lace.

13. Claims 16-18, 20-23, and 25 are rejected under 35 U.S.C. 102(b) as being anticipated by Bakewell (3782088).

Bakewell teaches an apparatus for processing a tape comprising tape supply (4) and support (Inherent, otherwise the supply would have to float in midair, something which is not known in the art), drawing arrangement comprising input (12, 14) and output roller (40, 50) means, and a driven roller friction false twisting arrangement (30) located between the input and output rollers. In regards to having a non-trivial angle between the direction of travel of the tape and the direction of travel of the roller surface, this is inherent of a friction false twisting roller. This is exactly how the false twist is applied.

Claim Rejections - 35 USC § 103

14. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

15. Claim 32 is rejected under 35 U.S.C. 103(a) as being unpatentable over Strohmaier.

Strohmaier essentially teaches the invention as discussed above, but fails to specifically teach having a cross section of an inner spiral of one hand, a diametral bar, and an outer spiral of opposite hand. It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to utilize such a false twist, so as to provide a small diameter strand with a solid core. In the process of false twisting tape structures, it is well known and well understood in the art that the angle of contact against the friction false twisting device determines the type of fold which will occur. With this understanding, the ordinarily skilled artisan would have known how and when to utilize a particular twist, based on the end use of the created strand.

16. Claims 40-45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Strohmaier in view of Hatch (TEXTILE SCIENCE).

Strohmaier essentially teaches the invention as discussed above, including a strand structure, but fails to specifically teach multiple uses for the strand. Hatch teaches us that it is well known to use strand yarn in knitted and woven fabrics, as well as sewing threads (Chapter 1, teaches of yarn, fabric, and assembly of fabric, all of which involve strand yarns). It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to utilize the strand of Strohmaier in any of the well known strand yarn uses, so as to produce a cheaper end product. By utilizing a false twisted tape, the ordinarily skilled artisan would understand the reduced costs versus opening, drawing, combing, roving, spinning, and winding a normal yarn.

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17. Claim 24 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bakewell in view of Mallory (2256150).

Bakewell essentially teaches the invention as discussed above, but fails to specifically teach a free rotating roller, which Mallory teaches. It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to utilize a freely rotating roller in the apparatus of Bakewell, so as to impart less of a drastic false twist in the yarn and prevent unwanted wear on the yarn. Mallory teaches a roller that when used, turns by way of the strand running over its surface. Such a roller would false twist the strand while avoiding surface wear on the strand which is normally imparted by the running surface of a driven roller upon release of the captured strand.

18. Claims 5, 7-11, 30, 33, 35, and 36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Strohmaier in view of Mallory.

Strohmaier essentially teaches the invention as discussed above, including a method of producing a polyester or nylon tape, but fails to specifically teach a composite tape. Mallory teaches a method of producing a tape comprising a substrate and a coating of inelastically extensible heat sealable adhesive on the inside of the twisted structure. It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to utilize a coating on the tape of Strohmaier, so as to produce a composite tape which would retain its twisted structure upon heating. The ordinarily skilled artisan would appreciate the teaching of adhesive by Mallory and would understand the benefits it would provide. Likewise, Mallory teaches us that adding a real twist to a tape to create a strand is well known. The ordinarily skilled artisan

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would have understood to do so, so as to utilize pre existing ring spinning equipment, enabling more efficient production of twisted strand.

19. Claims 37 and 38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Strohmaier in view of Lefevre et al (3126699).

Strohmaier essentially teaches the invention as discussed above, but fails to specifically teach a spun filament material contained within the cross section of the coiled tape, which Lefevre teaches (Column 1, lines 63-65). It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to utilize the spun filament material core of Lefevre in the structure of Strohmaier, so as to provided added axial strength to the strand. By providing a core to the twisted stand, the ordinarily skilled artisan would understand that additional axial strength is given to the strand, enabling greater tensile resistance.

20. Claims 13-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Strohmaier in view of Freeman et al (5088484)

Strohmaier essentially teaches the invention as discussed above, but fails to specifically teach a sublimable disperse dye in the coating to be transferred to a substrate, which Freeman teaches. It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to utilize such a dye in the strand of Strohmaier, so as to provide color without a second dyeing step. The ordinarily skilled artisan would appreciate the dye teachings of Freeman, and understand to use such methods to dye the strand of Strohmaier by incorporating it into the structure as taught.

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21. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Strohmaier in view of Mallory as applied to claims 5, 7-11, 30, 33, 35, and 36 above, and further in view of Sherrill et al (3745301).

The combination of Strohmaier in view of Mallory essentially teaches the invention as discussed above, but fails to specifically teach that the adhesive is a polyvinyl acetate copolymer. Sherrill teaches us that polyvinyl acetate acrylic is a well known adhesive in the textile art (Claim 10). It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to utilize a polyvinyl acetate copolymer adhesive, since such adhesives are well known to unite separate textile structures.

22. Claims 6 and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Strohmaier in view of Mallory as applied to claims 5, 7-11, 30, 33, 35, and 36 above, and further in view of Alderfer (2427334).

The combination of Strohmaier in view of Mallory essentially teaches the invention as discussed above, but fails to specifically teach the coating is an elastomeric material, which Alderfer teaches (Column 4, lines 53-58). It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to utilize an elastic coating in the structure of the combination, so as to allow greater flexibility in the yarn during further processing. Providing an elastic coating would allow the yarn to bend without rigidity or brittleness. The ordinarily skilled artisan would have understood this and known to use an elastic coating.

Double Patenting

23. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed.

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Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

24. Claims 1, 5, 6, 8, 9, 26, 31-34, and 37-39 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-6, 21-26, 34, 35, 37, and 39 of U.S. Patent No. 5766730. Although the conflicting claims are not identical, they are not patentably distinct from each other because both teach a method of making a strand material comprising drawing and false twisting a tape of drawable material comprising a substrate and elastic or inelastic coating, as well as a core added.

25. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shaun R Hurley whose telephone number is (703) 605-1236. The examiner can normally be reached on Mon - Fri, 6:30am - 3:00pm, off every other Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John J Calvert can be reached on (703) 305-1025. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

SRH
27 August 2004


JOHN S. CALVERT
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3700